

Comparisons of Job Characteristics

Focus Occupation: [Sheet Metal Workers \(47-2211\)](#)

Associated Occupation: [Heating, Air Conditioning, and Refrigeration Mechanics and Installers \(49-9021\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 84

Focus Occupation: Sheet Metal Workers (47-2211)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mechanical	6.8	20.1	17.4	<	Expanded education and/or training may be required
Building and Construction	4.0	12.5	16.5	>>	Current knowledge level is likely more than sufficient
Physics	4.3	11.4	7.3	<<	Extensive education and/or training may be required
Engineering and Technology	5.7	11.1	13.5	>	Current knowledge level is likely sufficient
Design	5.2	10.3	14.9	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 44

Focus Occupation: Sheet Metal Workers (47-2211)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Repairing	3.4	13.5	6.9	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	13.3	6.9	<<	Extensive development of skills in this area may be required
Installation	1.7	12.6	4.4	<<	Extensive development of skills in this area may be required
Equipment Maintenance	3.5	12.3	7.4	<<	Extensive development of skills in this area may be required

Operation Monitoring	6.6	11.4	7.2	<<	Extensive development of skills in this area may be required
Quality Control Analysis	5.9	11.2	8.5	<<	Extensive development of skills in this area may be required
Operation and Control	5.4	10.9	7.4	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	9.4	6.4	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 82

Focus Occupation: Sheet Metal Workers (47-2211)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Visualization	7.5	12.4	12.3	0	Current ability level may be sufficient
Extent Flexibility	4.8	11.8	9.1	<<	Extensive improvement in abilities may be required
Visual Color Discrimination	6.4	10.3	6.2	<<	Extensive improvement in abilities may be required
Hearing Sensitivity	5.6	10.0	5.5	<<	Extensive improvement in abilities may be required
Static Strength	5.0	10.0	10.0	0	Current ability level may be sufficient
Gross Body Coordination	3.9	7.4	6.6	<	Some improvement in abilities may be required
Gross Body Equilibrium	3.2	7.1	7.3	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 92

Focus Occupation: Sheet Metal Workers (47-2211)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Determine material or tool requirements	72
Determine project methods and procedures	76
Fabricate ducting	95
Fabricate sheet metal parts or items	80
Fabricate, assemble, or disassemble manufactured products by hand	11
Identify properties of metals for repair or fabrication activities	71
Install sheet metal assemblies in supportive framework	95

Lay out machining, welding or precision assembly projects	63
Move or fit heavy objects	8
Operate sheet metal fabrication machines	87
Perform safety inspections in industrial, manufacturing or repair setting	32
Position, align, or level machines, equipment, or structures	74
Read blueprints	10
Read technical drawings	7
Solder metal parts or components together	73
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use combination welding procedures	68
Use hand or power tools	2
Use soldering equipment	44
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 88

Focus Occupation: Sheet Metal Workers (47-2211)

Associated Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Tools and Technologies	Exclusivity
Bandsaws and accessories	26
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Data management and query software	1
Dispensing tools	6
Drafting supplies	9
Electrical measuring and testing equipment	7
Face and head protection	7
Fluid mechanics equipment	11
Forming tools	2
Gas analyzers and monitors	10
Holding and clamping tools	3
Holding and positioning and guiding systems and devices	23
Humidity and moisture measuring instruments	15
Indicating and recording instruments	2
Industrial trucks	10
Industry specific software	1
Ladders and scaffolding	6

Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Liquid and gas flow measuring and observing instruments	15
Machine tools	7
Marking tools	11
Measuring and layout tools	3
Metal bending and forming machinery	17
Non destructive examination equipment	13
Power tools	2
Pressure measuring and control instruments	10
Rough and finishing tools	5
Safety apparel	4
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Temperature and heat measuring instruments	6
Tool attachments and accessories	12
Transportation related equipment and instruments	29
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.